Stem Cell and Regenerative Medicine- Summer Research Internship

Grant Award Details

Stem Cell and Regenerative Medicine- Summer Research Internship

Grant Type: SPARK

Grant Number: EDUC3-08425

Project Objective: The project objective is to manage the SPARK program that provides 8 week stem cell research internships for high school students. The Program Director was in charge of recruiting students from underprivileged communities, place these students in stem cell research labs at leading institutions in California, and train the students in stem cell science and research techniques. The PDs were also responsible for implementing the CIRM social media guidelines which included having students post pictures about their internship experience on Instagram and write a blog. They also had to coordinate a patient engagement activity where students get first hand experience with patients and what they go through. Lastly the PDs had to coordinate their students attendance at the 2016 SPARK conference, making sure that their poster presentations and speeches were prepared.

Investigator:

Name:	Paul Utz
Institution:	Stanford University
Type:	PI

Award Value: $392,975

Status: Active

Grant Application Details

Application Title: Stem Cell and Regenerative Medicine- Summer Research Internship

Public Abstract:

The ultimate goal of our proposed summer internship program is to train a diverse group of students who will be the next generation of future stem cell scientists. The proposed internship will strengthen the future of stem cell research in California by providing California high school students the exciting opportunity to delve into hands-on research in various areas within stem cell biology. Our program aims to recruit a diverse group of participants from low socioeconomic backgrounds from various ethnicities. The participating students will be mentored directly by graduate students, post-doctoral fellows and Faculty within various stem cell research labs. Before participating in the research internship, students will prepare for the internship by attending a special workshop day which will include an overview of the program, biology basics review, stem cell introduction, a bootcamp on lab skills and techniques, a campus tour and a chance to socialize during the meal times. At the start of the program, students will be taught the basics of the stem cell field through the opportunity to attend a lecture series course in stem cell biology taught by graduate students. Additional lectures will be taught by Faculty and will include titles such as "How to Write a Scientific Abstract", "How to Read a Journal Article", "Careers in Science and Medicine" and "How to Create a Research Poster". Students will also have the opportunity to attend special seminars regarding science fairs, the college application process and graduate school/medical school educational paths by current MD and PhD students. One of the key skills students will learn through this internship will include how to present their research data to the public. The student interns will have several opportunities to present their research through an oral presentation symposium open to the community, presentation at lab meetings as well as presentation of their research poster at an end of summer poster session which is also open to the community. During the summer, our goal for the students is to be well trained in laboratory techniques and to motivate them to continue their excitement for stem cell and regenerative medicine research in the future. Another goal is that the participating students will disseminate their excitement for stem cell and regenerative medicine to their families, classmates in high school, and local communities. The discoveries that these students will contribute to in their labs will further help to promote stem cell research in California and throughout the world.

Statement of Benefit to California:

Our program recognizes that there is not only a great need to increase the pipeline of students entering the biomedical research field but also a compelling need to promote ethnic and socioeconomic diversity in the biomedical and life sciences. There also needs to be increased emphasis of beginning this initiative at the high school level. Exposing California high school students to this new field of stem cell research will allow them to explore biomedical research as a possible career, and to create a pipeline of future Californians to serve as stem cell biologists. Silicon Valley entrepreneurs exemplify the risk taking and creativity needed to change the world. Even before the Gold Rush, the State of California was considered a place to seek adventure and to make important discoveries. Now in 2015, stem cell biology and regenerative medicine require visionary leaders, and organizations such as CIRM to fund them and to sustain their ideas. California is falling further behind by the day in science and math education. There is no better way to improve science, math and engineering education in California than by enabling California students to DO science themselves – as stem cell researchers. These same young trainees will benefit other Californians by making important discoveries that will improve the health of other Californians – and for that matter the whole world.
